

Serial No. 10/788,824

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AMENDMENTS TO THE SPECIFICATION:

Please amend the specification in the application as follows:

Replace [0025] with the following substitute paragraph.

[0025] With reference to FIG. 4, we will now describe a protocol for distributed scheduling. The source node together with its distributed scheduler will be referred to below as "Source," and the destination node as "Destination." In message R1, Source requests to schedule one or more burst transmissions per cycle. In the specific example illustrated, Source is requesting a rate of three bursts per cycle. Upon receiving request R1, Destination grants the requested number of timeslots, for use in cycles subsequent to the current cycle. Thus, for example, grant G1 as illustrated in the figure offers the source timeslots 1, 6, and 9. Upon receiving the grant, Source checks the availability of its tunable laser for transmissions in all of the assigned timeslots. Source computes the required departure time of each burst for the granted timeslots and conflicts between required departure times for multiple times slots. In the example illustrated, Source discovers that there is a conflict with another transmission already scheduled for timeslot 6. Consequently, Source transmits only in timeslots 1 and 9, as indicated by edge T1 in the figure.

Replace [0026] with the following substitute paragraph.

[0026] Destination learns about conflicts by detecting the absence of received bursts on assigned timeslots. Accordingly, in the present example, Destination fails to receive a burst in timeslot 6 on transmission T1. As a result of non-receipt of the scheduled burst, the Destination and thereby detects that timeslot 6 is subject to a conflict. Upon detection of a conflict, Destination returns the unused timeslot to the pool of available timeslots, and assigns a new timeslot to Source for receipt of the non-received burst. In the present example, timeslot 8 is assigned in substitution for timeslot 6. This substitution is

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communicated to Source in grant G2. In the exemplary scenario shown in the figure, grant G2 arrives at Source during the next cycle following the cycle in which G2 was sent out. In the meantime, Source has sent out a second transmission on timeslots 1 and 9 only, as indicated by edge T2 in the figure. In the next cycle, Source sends bursts in timeslots 1, 8, and 9, as indicated by edge T3 in the figure. Given a sufficiently long cycle time B, the source nodes will as a consequence of the adaptive process described above, generally converge toward a state in which all are transmitting at or near the requested rates to all of their destinations.